

```
% hw14
img = imread("images/rgb1.jpg");
img = img(:, :, 1);

c = .01;
```

```
c = 0.0100
```

```
cf = fftshift(fft2(img));
cfl = cf.*c;
cfli = ifft2(cfl);
"Low pass filter, c = " + c
```

```
ans =
"Low pass filter, c = 0.01"
```

```
fftshow(cfli, "log");
```



```
c = 0.1;  
"High pass filter, c = " + c
```

```
ans =  
"High pass filter, c = 0.1"
```

```
cfh = cf.*c;  
cfhi = ifft2(cfh);  
figure,fftshow(cfhi, "abs")
```



```
function fftshow = fftshow(f, type)
if (type=="log" || nargin < 2)
    f1 = log(1+abs(f));
    fm = max(f1(:));
    imshow(im2uint8(f1/fm))
```

```
elseif (type=="abs")
    fa=abs(f);
    fm=max(fa(:));
    imshow(fa/fm)
else
    error("TYPE must be abs or log.");
end
end
```